Army Regulation 750–1

Maintenance of Supplies and Equipment

Army Materiel Maintenance Policy and Retail Maintenance Operations

Headquarters
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UNCLASSIFIED

f. Participate in planning and conducting logistics demonstrations and operational maintenance testing.

g. Establish and monitor modification work order (MWO) programs.

h. Develop BDAR techniques, procedures, and related tool and materiel requirements. The developers will also ensure BDAR concepts are incorporated into new materiel development.

i. Develop factors for determining ORF requirements. These factors will be submitted to HQDA (DALO–SMM) for approval.

j. Include requirements for compliance with Federal environmental quality standards for mobile equipment, beginning with the concept formulation process (AR 200–1).

k. Emphasize prognostics and diagnostics in the design, development, and improvement of equipment.

l. Ensure that data collected from all levels of maintenance is analyzed and used for prognostic purposes.

m. Ensure that equipment is designed with the need for a minimum number of common and special tools.

n. Support the SDC program as required in para 4–38.

Chapter 3
Maintenance Policies and Structure

Section I
General Policies

3–1. General maintenance policies

a. The Army has one maintenance standard. The maintenance standard is based on TM 10 and 20–series, PMCS. This standard applies to all equipment except equipment utilized as training aids and frequently disassembled and assembled for instructional purposes. This equipment will be maintained as training aids per paragraph 5–44. The maintenance standard is the condition of the equipment when—

(1) The equipment is fully mission capable.

(2) All faults are identified following prescribed intervals using the "items to be checked" column of the applicable TM 10 and 20–series PMCS table. Aviation faults are determined by using the aircraft preventive maintenance inspection system (PMIS) per TM 1–1500–328–23 and—

(a) Corrective actions that are authorized to be accomplished at unit level and for which the required parts are available are completed.

(b) Parts required to complete the corrective actions but which are not available are on valid funded requests.

(c) Corrective actions that are authorized to be accomplished at a maintenance level above the unit are on a valid DS maintenance request.

(3) Equipment services are performed within the scheduled service interval.

(4) All urgent and limited urgent MWOs are applied. Additionally, one–time safety–of–use messages and emergency safety–of–flight messages are applied to aircraft.

(5) All authorized BII and COEI are present and serviceable or on a valid funded request.

b. Proper use, care, handling, and conservation of materiel per applicable TMs or commercial manuals is mandatory.

c. A commissioned officer, warrant officer, or civilian equivalent qualified in maintenance will be appointed in writing at each level of command to provide staff supervision of materiel maintenance within the command. In MTOE units where there is only one commissioned or warrant officer, a qualified non–commissioned officer may be appointed.

d. Maintenance standing operating procedures (SOPs) will be established and maintained by all Army organizations and activities performing maintenance.

e. Maintenance support programs will be structured to meet materiel system readiness objectives as defined by AR 700–138.

f. Materiel maintenance management will be directed toward a weapon system and/or materiel end item.

g. The top design priorities in the development of new weapon and equipment end items are modular design and discard at failure instead of repair. These design features will minimize repair time and the need for additional special tools by allowing for simple fault diagnosis and component replacement.

h. Repair on site, whenever possible, using the lowest level maintenance activity that has the capability and authority to perform the work. Repair forward will minimize repair times by minimizing evacuation of materiel.

i. Maintenance will be performed by military personnel in areas forward of the corps rear boundary. Contractors/contracted maintenance will not normally be allowed for unit or DS levels of maintenance. It is Army policy that equipment issued to troops in TOE units will be maintained by soldiers at unit and DS levels. Exceptions to this policy will be approved by HQDA. Contractor maintenance personnel will not be permanently stationed forward of the corps rear boundary. Contractor maintenance personnel may travel forward of the corps rear boundary on a case–by–case

basis as individual equipment failures occur to provide temporary on–site maintenance. Behind the corps rear boundary, in addition to military personnel, the use of civilian maintenance personnel (contract, TDA, local nationals, and so forth) may be acceptable as a prudent risk.

j. Limits on available time to repair at each level of maintenance drives the evacuation policy. Repair time guidelines contained in doctrinal publications must be used with caution. Repair/evacuation times, in turn, drive the placement of each task in the MAC and eventually the requirements for personnel, equipment, and overall force structure.

k. MACOMs have authority to authorize fabrication of repair parts and components that cannot be provided by the requester's required delivery date (RDD). The approving MACOM will provide funds for this fabrication. This excludes components critical to flight safety.

l. Modification or alteration of Army materiel is forbidden, except as authorized by the Interim Operation Instructions (IOI) for Army Materiel Change Management (MCM).

m. HQDA (DALO–SM) will coordinate with the Office of the Secretary of Defense (OSD) and other military departments and services to develop common maintenance terminology and data for use in maintenance management documents.

n. The serial number assigned to an end item or component will not be changed, regardless of changes in configuration, without written approval by the item manager.

o. Line replacement units (LRUs) and printed circuit boards (PCBs) will be identified when removed from major end items or components of the end item. Procedures are in DA Pam 738–750 and DA Pam 738–751.

p. TMDE will be calibrated per DA TMDE calibration and repair support program. See AR 750–43 for detailed guidance.

q. Quality control must be fully integrated into maintenance operations to ensure—

(1) The identification of equipment faults.

(2) Compliance with repair procedures and equipment standards contained in the TMs and commercial publications.

r. Equipment that accumulates less than a specified number of miles/kilometers or hours in a one year period may have reduced services applied. Criteria and management of low usage equipment are defined in DA Pam 738–750.

s. The maintenance of supplies and equipment issued to USAR units and activities will be achieved by providing for—

(1) Maximum utilization of units in performance of their MTOE authorized missions.

(2) The use of AMSAs, the maintenance branch of the ECS when in the roll of support maintenance (unit/limited DS), and the ASF when in the roll of limited AVIM. This expanded mission will be authorized by the USARC (ATTN: AFRC–LGS–M) or by the CG, USARPAC, and is based upon available manpower, facilities, and/or resources. Parent MUSARCs are held accountable for excessive backlog (not to exceed 21 days of unit maintenance). Priority will be given to unit level maintenance when backlog exceeds 21 days. EMM will be approved by DALO–SMM and included in appendix B.

(3) Establishment by USARC of CONUS USAR maintenance support policies. Applicable commanders in chief (CINC) of OCONUS USARC units will establish maintenance support policies.

(4) Support agreements with other DOD activities and Government agencies.

3–2. Application of urgency of need designator (UND) to maintenance

The determination of the appropriate priority based on the UND will be in accordance with table 3–1.

a. UND A is used in assignment of maintenance priorities when—

(1) The unit/activity is unable to perform its assigned operational mission.

(2) Materiel to be repaired is MTOE equipment that is reportable under AR 220–1, and TDA equipment that is reportable under AR 700–138 and AR 18–25.

(3) The unit/activity is unable to perform assigned training missions.

(4) Repair of essential facilities of an industrial/production activity manufacturing, modifying, or maintaining mission–essential materiel is required.

(5) The materiel is an intensively managed or critical item.

b. UND B is used in assignment of maintenance priorities for repair of materiel when—

(1) The unit/activity's ability to perform its assigned operational mission is impaired. Without such materiel, the unit/activity may temporarily accomplish assigned missions, but at reduced effectiveness and efficiency below the level of acceptable readiness.

(2) The materiel is ERC–A or ERC–B materiel and is not DA Form 2406 (or DA Form 3266–1 (Army Missile Materiel Readiness Report) or DA Form 1352 (Army Aircraft Inventory Status and Flying Time)) reportable.

(3) USAR TDA maintenance activities are authorized to upgrade the UND when a not mission capable (NMC) deficiency is found. Only NMC parts are requisitioned when upgraded.

c. UND C is used in assignment of maintenance priorities for all other materiel not listed above.

d. Maintenance units/activities manage repair of materiel by maintenance priority designator and analysis of impact

on unit readiness. The usual sequence of work will be to repair the oldest job within a priority first. However, analysis of unit materiel readiness may dictate re–sequencing of maintenance work. For example, two units of the same force/activity designator (FAD) each have a not mission capable tank on the same maintenance priority. One tank has been not mission capable for 30 days, but is not reducing the C–rating of the unit; the other tank has been not mission capable for 5 days, but is reducing the C–rating, priority should be given to the second tank.

e. As a general rule, repair parts requisition designators perpetuate the maintenance priority designator assigned on DA Form 2407. AR 725–50 describes in detail supply priority designators.

3–3. Maintenance of medical material

Maintenance policies, programs, and procedures unique to medical materiel are contained in AR 40–61, chapter 6.

3–4. Maintenance of consolidated express (CONEX) and military–owned demountable containers (MILVAN)

CONEX/MILVANs are maintained within the capability of the using unit or activity. Additional maintenance policies are contained in AR 750–2.

3–5. Maintenance of facilities engineering equipment

Maintenance policies and procedures unique to those non–type classified and nonstandard items of equipment utilized by DEH or DPW personnel to accomplish their installation's facilities engineering mission are contained in AR 420–18.

Section II
Rescinded

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Section III
The Army Maintenance Structure

3–8. The Army maintenance system

a. The Army maintenance system, less aircraft, consists of four levels. They are unit, DS, GS, and depot levels. Aircraft maintenance consists of three levels: unit (AVUM), intermediate (AVIM) and depot.

b. The MAC is the primary tool for assigning tasks within the levels of the Army maintenance system. All new and revised MACs are coordinated with the proponent (TRADOC school), and submitted to HQDA (DALO–SMM) for final approval prior to publication. When directed by HQDA (DALO–SMM), AMC staffs the MAC with user MACOMs for comment.

3–9. Unit level maintenance

a. Unit maintenance is the first and most critical level of the Army maintenance system. It is the foundation of the maintenance system and requires continuous emphasis by all commanders. Commanders must establish a command climate that ensures that assigned equipment is maintained to the maintenance standard defined in paragraph 3–1 *a* above. Commanders are responsible for providing resources, assigning responsibility, and training their soldiers to achieve this standard.

b. The cornerstone of unit maintenance is the operator/crew performing PMCS from the applicable TM 10–series. The before and during PMCS checks concentrate on ensuring equipment is fully mission capable (FMC). Faults detected during before operations checks that make the equipment not FMC or violate a safety directive must be corrected before the mission. Faults detected during the mission affecting FMC must be corrected during the mission. Faults detected before or during the mission not affecting FMC may be corrected, if time permits, or recorded/reported for correction after the mission. After operations checks detect faults resulting from the mission and ensure the identification and correction of faults to maintain the equipment to the maintenance standard.

c. Unit mechanics will use the TM 10– and 20–series to identify and correct faults. The TM 20–series PMCS tables are used to perform scheduled PMCS services that sustain and extend the combat capable time of the equipment.

d. Maintenance operations normally assigned to unit maintenance include the following:

(1) Performance of PMCS.

(2) Inspections by sight and touch of external and other easily accessible components per the TM 10– and 20–series.

(3) Lubrication, cleaning, preserving (to include spot painting), tightening, replacement, and minor adjustments authorized by the MAC.

(4) Diagnosis and fault isolation as authorized by the MAC.

Chapter 4
Maintenance Operations

Section I
Materiel Repair and Evacuation

4–1. General

a. Proper performance of PMCS by the equipment operator will ensure early detection of faults and maintenance requirements.

b. MACs specify what tasks can be performed at each level of maintenance.

c. To ensure the most cost–effective use of maintenance resources, the economic reparability of unserviceable materiel will be determined per paragraph 4–5 prior to initiating any action to repair the materiel.

d. The decision to repair or evacuate is based on the maintenance repair and recoverability codes, urgency of need, and a mission, enemy, time, terrain, troops–available (METT–T) analysis.

e. Uneconomically reparable materiel will not be evacuated beyond the level authorized to dispose of or reutilize the materiel.

f. All actions relative to the inspection, classification, verification, and disposition of uneconomically reparable equipment will be accomplished in an accurate and timely manner.

g. Materiel will be disposed of per AR 710–2.

h. No one individual will perform duties as both a materiel repairer and shop stock clerk at the same time.

4–2. Unserviceable materiel

a. Unserviceable end items that cannot be repaired promptly will be evacuated to the supporting maintenance activity. Unserviceable reparables will be evacuated through the appropriate supply support activity.

b. DS and GS maintenance units will provide backup evacuation support to supported units.

c. Materiel will be protected (packaged/crated) to prevent further damage during evacuation. This includes all BII and components.

d. DS and GS maintenance units will not hold unserviceable materiel that they do not intend to repair.

4–3. Technical inspections (TIs)

a. A TI will be performed prior to repair or evacuation of unserviceable end items or components. TIs are to be made by a technically qualified individual. Inspections will be performed according to equipment maintenance and serviceability standards applicable to the maintenance level performing the repair. The results of the TIs are used to—

(1) Verify serviceability.

(2) Determine the economic reparability of the item.

(3) Determine the extent of maintenance effort and repair parts required to restore the item to the prescribed serviceable condition.

(4) Determine if unserviceable items were rendered unserviceable due to other than fair wear and tear.

(5) Determine estimated cost of damages (ECOD).

b. The TI which accompanies a request for disposition to the NICP will be verified by a senior inspector, maintenance technician, or maintenance/motor officer as specified by the MACOM.

c. When the TI supports an investigation of pecuniary liability and actual costs cannot be determined, inspectors will prepare an ECOD. Basic policy guidance for an ECOD in support of a report of survey is in AR 735–5.

d. DA Form 2404 or other approved forms will be used to record results of technical inspections.

4–4. Verification inspections

Verification inspections of major end items ensure the accuracy of a TI when it results in unserviceable, uneconomically reparable condition codes (CCs) of H or P.

a. MACOM commanders without subordinate installations and installation commanders will—

(1) Ensure that technical inspections resulting in unserviceable, uneconomically reparable CCs of H or P, are verified using independent inspections prior to requesting disposition instructions per AR 710–2. Verification inspection will not be performed by the individual performing the initial condition code classification.

(2) Ensure that inspectors conducting verification inspections are technically qualified in the equipment commodity they are inspecting.

b. The recording of a verification inspection will be done by typing or stamping a statement on the original inspection form. The required data elements are—

(1) Organization of the verifying inspector.

(2) Inspector's name and grade.

(3) Date of inspection.

(4) Signature of inspector.

c. Major end items with CC H or P that fail a verification inspection will be referred to the maintenance officer with the corrected classification. The maintenance officer will determine further action required to repair the item.

4–5. Maintenance expenditure limit (MEL)

a. MEL is the total allowable one–time cost to restore an end item, major component, or reparable component to a fully serviceable condition as prescribed in the appropriate TM. Current MELs are listed in the TB 43–0002–series.

(1) MEL is used to ensure economic and operational effectiveness of Army maintenance at all levels. Depot level assistance may be obtained through the LAO.

(2) Required repairs will not be broken into separate job estimates to bypass prescribed MELs.

b. MEL for repair of end items (for example, trucks and generators) and major components (for example, receivers and machine–guns) at DS and GS levels of maintenance is expressed as a percentage of the current unit replacement price.

(1) The MEL is reviewed at least annually and updated as required. Interim changes are incorporated into the base document within 1 year.

(2) Planning prices in SB 710–1–1 will be the source of replacement costs for end items.

(3) The Army Master Data File (AMDF) prices will be used as the source of replacement costs for reparables. Local/geographical costs will be used for overhead and labor costs.

(4) Commercial equipment purchased by a MACOM will have a MEL established and published by that MACOM.

c. MACOM commanders have one–time approval authority on requests for waiver of published MEL when the required maintenance can be accomplished at DS and GS levels of maintenance, or by local contract. In approving such requests, commanders will ensure that—

(1) A replacement item is not available by the RDD.

(2) Resources are available or can be made available to the requesting organization to do the repairs prior to the required delivery date.

(3) Requesting organizations submit a repair cost estimate and justification for retention.

d. Installation commanders within AMC are authorized to approve repairs that exceed MEL for commercial equipment and do not require materiel proponent approval. Installation commanders will contact the U.S. AMC Installations and Services Activity, Rock Island, IL to ensure that excess equipment is not available or that new procurement would not prove to be more cost–effective. HQ, AMC maintains a listing of specific pieces of equipment included under this waiver.

e. When a replacement item is not available the materiel proponent may grant an exemption from MEL.

f. Repair cost estimates at the DS and GS levels of maintenance are based on the cost to return materiel to serviceable condition.

g. The cost estimate is based on all costs except those specifically excluded herein.

h. To determine repair eligibility, compare the cost estimate with the MEL percentage multiplied by the replacement cost as listed in SB 710–1–1.

i. The following direct costs will be used to determine repair cost estimates when faults are found during technical inspections:

(1) *Direct labor.* Direct labor is that labor (civilian or military) that can be specifically identified to the repair to be performed. Direct labor involves only personnel in direct productive contact with the item or service involved. This does not include initial inspection. To estimate direct labor costs, determine/estimate the direct labor man–hours required and multiply by the appropriate hourly labor rate. (See *(a)* through *(d)* below.)

(a) Direct labor man–hours. The determination of the direct labor man–hours to be applied will be based on working hour requirements for maintenance tasks listed in applicable equipment publications; commercial flat rate manuals, when appropriate; similar work performed previously; or individual experience. The direct labor man–hours will be periodically reviewed and updated, if necessary.

(b) Civilian labor rates. The cost of civilian labor will be based on a labor rate for the work center that will perform the work. Labor rates, whether determined from annual salaries or hourly wage rates, will be provided by the servicing finance and accounting office.

(c) Military labor rates. Labor rates for military personnel will be the average military wage rate for the work center performing the work. These rates will be provided by the servicing Finance and Accounting Office.

(d) Established labor rates. Major Army commanders and directors of agencies may establish and use standard hourly rates for direct and indirect (or overhead) labor, so long as such rates are consistent with AR 37–1. When such standard rates are established, separate rates are established for each category of supportable materiel, commodity

group of equipment, and weapon system. A separate standard labor rate will be established for each major geographical area where wage levels vary significantly.

(2) *Materiel.* The cost to repair includes all materiel, including PA–funded materiel, directly applied to the particular equipment undergoing repair. (See *(a)* through *(c)* below.)

(a) Consumable items received from the supply system may be costed as billed by the supply agency. If no billing is available, consumables are costed at the standard inventory price as published in appropriate supply manuals or AMDF. Items procured from local sources are priced at the latest invoice cost. Cost of items fabricated will be based on actual cost, where possible. When actual cost is not available, engineering estimates, including indirect expenses, will be used.

(b) Government–furnished materiels expended by a contractor in performing all or part of the repair will be costed at the standard inventory price.

(c) Replacement components and assemblies used in the repair process will be costed at the standard inventory price. Credit is taken for the return of the reparable component in an amount equal to the current standard inventory price, less the estimated cost to repair the component.

(3) *Freight and packaging.*

(a) Freight will not be included as an element of cost when the equipment to be repaired is located in CONUS. When the equipment to be repaired is located overseas and no local capability to repair exists, the cost of freight to CONUS will be included as an element of cost. The cost of freight will include all transportation and handling cost from point of use to designated CONUS point of repair.

(b) When equipment cannot be repaired onsite, and costs are incurred to prepare the equipment for shipment, such cost (including materials) will be included in the estimate of cost to repair regardless of origin or destination.

j. Indirect costs to be included will be determined by applying the indirect or overhead rate, computed using AR 37–1, to the estimated direct labor man–hours. The indirect expense rate will include the following:

(1) Manufacture or production expenses. These expenses are costs incurred within or identifiable to the maintenance shop or organization performing the repair work, although not identifiable to particular jobs.

(2) General and administrative expenses. These expenses are costs incurred in the general management or supervision of the installation as a whole that are allocated among maintenance and other activities.

k. Miscellaneous costs of repair will include all contractual services acquired incidental to, and identifiable with, the performance of all or a portion of the specific repair. All other costs required to accomplish the repair that are directly identifiable with the equipment will be included except those directly named in *m* below.

l. Items of operating expense will include all scheduled and unscheduled services and repairs that are accomplished by the using organization, including repair parts. These costs will be included when the item being repaired is excess to unit needs, was damaged accidently, or is repaired by higher level maintenance on a non–return basis. See exception in *m* below.

m. The following costs will not be included in the estimate of cost to repair:

(1) Replacement of basic issue list items.

(2) The labor cost of applying modification work orders.

(3) The cost to overhaul or replace accessory items used to adapt equipment for special uses. This would include such items as rank insignia, winterization kits, flashing lights, two–way radios, tool kits, and similar items. Individual estimates to overhaul such items will be made as appropriate and required.

(4) Items of operating expense, when the item being repaired is not excess to unit needs, has not been accidently damaged, or is repaired by higher level maintenance on a return–to–user basis.

4–6. Equipment transfer and turn–in

a. Equipment that is transferred between MACOMs, transferred into war reserves or prepositioning of materiel configured to units sets (POMCUS), prepared for storage below wholesale level, and other specified stocks will meet the following requirements:

(1) The maintenance standard as defined in paragraph 3–1 *a*.

(2) Scheduled services will be performed if 90 percent of service interval (using criteria outlined in applicable schedule) has expired as of the transfer date reflected in disposition instructions from the wholesale manager. The criteria for services of time is suspended during shipment and will resume upon acceptance at gaining site.

(3) Equipment to be transferred should be inspected by the losing command a minimum of 120 days prior to the transfer date, allowing parts to be requisitioned and received, so that corrective actions can be completed prior to the acceptance inspection. Equipment being transferred should be inspected for acceptance by the receiving command, or appropriate agency, a minimum of 60 days prior to transfer date. This inspection serves as the final acceptance inspection and establishes corrective action required by the losing MACOM unit before transfer. It also serves as a baseline for the verification of equipment condition at the receiving location. MACOMs and agencies are responsible for funding TDY related to their responsibilities for inspections as outlined.

(4) The results of TM 10– and 20–series PMCS and PMIS acceptance inspections (record copy of DA Form 2404) and other records required by DA Pam 738–750 and DA Pam 738–751 will accompany the equipment.

(5) Gun tubes have a minimum of 75 rounds of effective full charge remaining when transferred between MACOMs, into war reserve, POMCUS, or other specified stocks.

(6) Equipment accepted for depot overhaul via the Combat Vehicle Evaluation (CVE) Program will not be transferred between MACOMs.

b. Equipment transfer between MACOMs in unit sets (force package fielding) will meet the following requirements in addition to those in *a* above:

(1) Requisitions for repair parts with estimated delivery dates past the transfer date will be canceled. Appropriate funds (price from current AMDF) will be transferred to AMC as specified in the MOA.

(2) Outstanding DS (or higher) maintenance requests that cannot be completed prior to transfer will—

(a) Require the gaining and losing MACOMs to negotiate an acceptable solution such as delayed transfer dates for specific pieces of equipment. Agreement requires concurrence of DA DCSOPS.

(b) Be canceled. Appropriate funds (current AMDF price) will be transferred to AMC as outlined in transfer MOA.

(3) MACOMs/agencies are responsible for funding TDY related to their responsibilities for transfers as outlined above.

c. AMC responsibilities for unit set transfers between MACOMs are to—

(1) Serve as arbitrator for inspections outlined in *a* (3) above.

(2) Receive funds transferred from losing MACOMs as outlined in subparagraph *b* above.

(3) Perform corrective actions at the receiving/handoff site to ensure equipment is in the same condition as reflected by record copy of acceptance inspection required in *a* (3) and (4) above.

(4) Provide total package fielding support to gaining MACOM.

d. Equipment transferred between MACOMs in other than unit sets will meet the requirements in *a* above. In addition, equipment will not be transferred until all corrective actions requiring parts are completed and DS and higher maintenance requests are completed.

e. MACOM commanders will establish the standard for materiel transferred between units in the MACOM. Use of TM 10– and 20–series PMCS maintenance standard is encouraged. MACOM commanders will provide necessary maintenance resources and assign responsibility for repair of materiel in the MACOM.

f. Equipment turn–in is accomplished as follows:

(1) Equipment turned in for depot overhaul is not required to meet the transfer standards outlined above. Equipment will be turned in "as is" complete (including BII and COEI), unless an exception is made by AMC.

(2) Materiel at unit level that is excess as a result of changes in authorization documents or displaced equipment will be turned in using the standard outlined in *a* above, unless an exception is made by AMC. AMC may provide an exception for equipment accepted for depot overhaul or rebuild, equipment being disposed of, or other equipment if an appropriate reason exists. Other excess materiel (that is, found on post) may be turned in to the supporting supply activity in "as is" condition.

(3) Materiel above the unit level (that is, supply support activity or theater war reserve) reported excess will—

(a) Not be scheduled for repair or maintenance services unless directed by the national inventory control point.

(b) Be maintained in its present condition by the owning organization.

(c) Not be cannibalized or involved in parts substitution without prior authorization from the national inventory control point (NICP).

g. Exceptions are as shown below:

(1) Aviation equipment transferred between property accounts will conform to the serviceability criteria contained in TM 1–1500–328–23.

(2) Equipment used as training aids and is assembled and disassembled is assigned a condition code of "F" or less. Depot overhaul is required to transfer or reissue this equipment. Equipment used for base operations or for the original purpose operator/crew training will meet the transfer/turn–in standard.

4–7. Controlled exchange

Controlled exchange is the removal of serviceable components from unserviceable economically reparable end items for immediate reuse in restoring a like item or weapon system to an FMC condition. The unserviceable component must be used to replace the serviceable component or retained with the end item that provided the serviceable component.

a. Controlled exchange is authorized only when—

(1) Required components are not available from the supply system before the RDD.

(2) A valid requisition is submitted to replace the unserviceable item.

(3) The maintenance effort required to restore all of the unserviceable reparable materiel involved to a mission capable condition is within the MAC authorization and capability of the unit performing the controlled exchange.

(4) The end item or weapon system from which the serviceable component is removed is classified not mission capable supply (NMCS).

(5) An aircraft from which a serviceable component is removed must be classified NMCS, not mission capable maintenance (NMCM), or partially mission capable (PMC).

(6) Aircraft maintenance manual instructions require that a known serviceable component be temporarily used while troubleshooting. Such components may be temporarily exchanged from a fully or partially mission capable aircraft.

(7) The end item or weapon system will not be degraded to an uneconomically reparable condition.

(8) The end item or weapon system from which the serviceable component was removed is protected from further degradation.

(9) The unserviceable component is tagged and installed on, or retained with, the end item or weapon system from which the serviceable like item was removed. In addition, the removal of the component must be recorded on the DA Form 2407 or DA Form 2404 for the end item or weapon system. This is to retain the identity and integrity of the reparable end item or weapon system.

(10) The organization performing the controlled exchange takes prompt action to restore the unserviceable materiel to an FMC condition.

b. When the controlled exchange satisfies a requirement already in the Army supply system, that requisition will be either canceled or used to restore the unserviceable end item or weapon system to FMC.

c. Controlled exchange by using units is authorized only when—

(1) All of the unserviceable reparable materiel involved is owned or under control of the organization performing the controlled exchange.

(2) It is the only means reasonably available to eliminate an adverse effect on the operational readiness of the unit, organization, or activity performing the controlled exchange.

(3) Approved by the commander of the organization performing the controlled exchange.

d. Controlled exchange by DS and GS levels of maintenance will be authorized only when—

(1) It is the only means of providing an FMC end item or weapon system to a supported unit within the timeframe indicated by the issue priority designator on the maintenance request.

(2) Approved by the DS/GS commander, IMMO, or his designated representative.

e. During mobilization or combat, MACOM commanders may modify the controlled exchange conditions as deemed necessary.

f. Controlled exchange is not authorized when the materiel involved in an accident has not been formally released by the investigating officer.

g. Controlled exchange is not authorized on ORF assets.

4–8. Cannibalization of materiel

a. Cannibalization is the authorized removal of components from materiel designated for disposal. Cannibalization supplements supply operations by providing assets not immediately available through the Army supply system. Costs to cannibalize, urgency of need, and degradation to resale value of the end item should be considered in the determination to cannibalize.

b. Materiel awaiting disposition instructions will not be cannibalized without prior approval of the NICP.

c. Policies and procedures for establishment and operation of cannibalization points are contained in AR 710–2 and DA Pam 710–2–2.

d. During combat, commanders may authorize the cannibalization of disabled equipment only to facilitate repair of other equipment for return to combat. No parts will be cannibalized for stockage at the battalion level.

e. Cannibalization is not authorized on ORF assets.

4–9. Modification work orders (MWOs)

a. Modifications to Army materiel are either mandatory (urgent, limited urgent, or normal) or nonmandatory (minor alterations, special purpose, or special mission modification).

b. Mandatory modifications are authorized for application by DA Modification Work Order (DAMWO). Some MWOs are implemented by MWO fielding plans (MWOFPs). The proponent for the MWO is responsible for applying the MWO. The MWO Application Completion System is maintained at the USAMC Systems Integration and Management Activity (SIMA)–West and can provide information on MWOs.

c. Equipment awaiting application of an urgent MWO will be deadlined.

d. Limited urgent modifications will be applied within the timeframe specified in the MWO. If the modification is not applied within the specified time, the equipment will be deadlined.

e. Normal modifications are applied before the completion date stated in the MWO or MWOFP.

f. Commanders may authorize special modifications of materiel. Materiel must be able to be returned to its original state within 24 hours. Special modifications to aircraft and COMSEC equipment require prior approval from ATCOM and NSA, respectively.

Section II
Operations Management

4–10. Materiel records and reports

Materiel records and reports for maintenance management and performance of maintenance is prepared and maintained as prescribed in DA Pam 738–750, DA Pam 738–751, and AR 700–138.

4–11. Measurement of maintenance performance

a. The management of maintenance operations throughout the Army will be based upon a performance management approach that supports the Army management philosophy described in AR 5–1. This approach will enable the maintenance organization to develop a unified effort around goals and objectives.

b. The planning and controlling functions of management will be emphasized to ensure that—

(1) Objectives are established to support mission goals.

(2) Performance is measured against quantifiable standards that reflect the objectives.

(3) Corrective actions taken are based on improving the factors that are constraining performance.

c. Maintenance performance measures are the key element of the control function of maintenance operations management. Through use of performance measures, commanders and managers will ensure that their maintenance operation is providing the best possible support to sustain combat readiness.

4–12. Unit level management

Commanders and managers will operate their unit level maintenance program per the procedures contained in FM 43–5 and DA Pam 750–35.

4–13. Utilization standards

a. MACOMs will ensure the establishment of a manhour accounting program where automated capability exists. Manhour accounting is optional where automation is not available and manual procedures must be used.

b. Unit commanders are responsible for the utilization of assigned military and civilian personnel. The maintenance supervisor is directly responsible for utilization of available maintenance personnel. Appendix C provides an explanation of and instructions for calculation of manhour utilization rates. The following are DA directed standards and goals for manhour utilization rates:

(1) The standard for utilization of assigned civilian personnel is 85 percent.

(2) The standard for utilization of available military personnel is 85 percent.

(3) The goal for utilization of assigned military personnel is 50 percent.

4–14. Maintenance management systems

a. The primary functions of maintenance management include forecasting, distribution, scheduling, and production control of maintenance workloads. Maintenance management is accomplished through DA standard, MACOM standard, and corps, division, or installation unique systems.

b. The Army Maintenance Management System (TAMMS) and the Army Maintenance Management System–Aviation (TAMMS–A), as described in DA Pam 738–750 and DA Pam 738–751, prescribe manual procedures for preparation and management of forms and records required to manage maintenance, control use, and report warranty actions and faults on Army equipment. Automated systems report serial numbers of selected components for maintenance actions performed. Procedures and a list of selected components are contained in DA Pam 738–750. Automated system procedures are contained in the applicable system's user manual.

c. TAMMS data base will be maintained by the USAMC LOGSA per DA Pam 738–750.

d. TAMMS–A data base will be maintained by U.S. Army Aviation and Troop Command (ATCOM).

e. Automated systems implementing TAMMS take precedence over manual systems.

f. DA standard systems, when implemented, take precedence over MACOM and installation systems.

g. The Unit Level Logistics System (ULLS) is the DA standard system to automate TAMMS at unit level.

h. The Standard Army Maintenance System (SAMS) is the DA standard automated system having priority over the maintenance reporting and management (MRM) system and maintenance activity management system (MAMS). SAMS produced information from the work order transfer process is submitted weekly to the Commander, USAMC Logistics Support Activity, ATTN: AMXLS–RB, Redstone Arsenal, AL 35898–7466.

i. The support maintenance management system (SMMS) and maintenance information management system (MIMS) are the authorized MACOM installation standard systems until replaced by installation level SAMS.

j. The maintenance module of the DA standard multicommand system for the Army Medical Department Property Accounting System (AMEDDPAS) ADSM–18–HL3–RPB–IMB–UM is the automated maintenance management system for TDA medical maintenance activities. MTOE MED maintenance units use TB 38–750–2.

k. The mobile, production, and service equipment maintenance modules of the interactive AMC Standard Installation Equipment Management System (IMES) are the authorized automated system capabilities for all AMC units/activities per ADSM 18–L80–KAL–ZZZ–UM.

l. Standard Army Management Information System (STAMIS) Computer Exchange (SCX) is composed of commercial–off–the–shelf (COTS) computer systems including their associated peripheral equipment used to operate or support tactical STAMIS applications. SCX stockage will be located at DS SSAs and designated depots/FRAs in a quantity initially determined by the Program Executive Office (PEO STAMIS). It will provide direct exchange support for the extended depot repair process described in paragraph 5–52c.

4–15. Work order logistics file (WOLF)

The WOLF is the Army central file for selected data from DA Form 2407 and DA Form 5504 (Maintenance Request) generated at DS and GS levels and transmitted through SAMS and MIMS. The WOLF—

a. Provides maintenance data to materiel developers and commanders at all levels for maintenance engineering and maintenance performance.

b. Is maintained by LOGSA.

Section III
Technical Assistance and Supply Interface

4–16. Technical assistance

Effective maintenance support of materiel combines the maintenance program conducted by the using activity and its supporting maintenance activity. Supporting maintenance activities must maintain a proactive liaison to assist using activities in accomplishing their materiel maintenance responsibilities.

4–17. Logistics Assistance Program (LAP)

The LAP is administered by AMC. The LAP provides technical and logistical assistance to unit and DS and GS levels of maintenance. The installation point of contact for LAP is the Logistics Assistance Office.

4–18. MAIT Program responsibilities

a. The MAIT program is designed to—

(1) Upgrade Army materiel and units to a state of readiness consistent with assigned goals needed to carry out the Army mission.

(2) Develop unit capabilities to meet mobilization and contingency operations.

(3) Ensure that commanders at all levels are provided assistance in identifying and resolving maintenance, supply, and maintenance management problems within their units.

(4) Provide effective and responsive assistance and instruction (A and I) to units and activities.

(5) Augment the commander's capability for providing maintenance and associated logistic A and I to organic, attached, and supported units.

(6) Identify systemic problems in maintenance management and provide assistance to improve management of maintenance workload at unit, DS and GS levels.

(7) Generate an atmosphere of mutual trust between the MAIT and the supported unit. This allows unit personnel to participate actively in problem identification and resolution without fear that any derogatory information will be used as a basis for adverse command action.

b. The DCSLOG will—

(1) Develop the MAIT Program.

(2) Approve or disapprove requests for program changes or deviation.

c. Major Army commanders, except the CGs, Army Materiel Command, U.S. Army Criminal Investigation Command, and the Commander, Military Traffic Management Command (MTMC) will—

(1) Establish a MAIT program to support Active Army units.

(2) Establish a MAIT program at the Readiness Group (RG) or comparable level to support Army Reserve units. Installations, RGs, or Major U.S. Army Reserve Commands that do not have a resident MAIT will request A and I support from the closest MAIT.

(3) Ensure that MAIT teams are technically self–sufficient for the routine support mission.

(4) Provide for the temporary augmentation of MAIT to fill short–term or infrequent requirements for equipment and management skills not available from local resources.

(5) Ensure that sufficient funds and personnel are budgeted and allocated for MAIT operations.

(6) Coordinate technical assistance programs to provide maximum benefit to supported units with minimum resources.

(7) Ensure that any acronym that could be misconstrued as being MAIT is not used.

(8) Review MAIT operations annually to ensure maximum program effectiveness.

(9) Submit recommendations for MAIT Program improvement or deviation to HQDA (DALO–SMM), WASH DC 20310–0546.

(10) Upon request, provide backup MAIT support to units of the ARNG. Such support should be reciprocal and is normally reimbursable.

(11) Schedule periodic conferences between MACOM and CONUS/installation MAIT coordinators to highlight and resolve conflicts in policy and procedures.

d. CNGB will ensure that MAIT program services are furnished to units of the ARNG.

e. CONUS and OCONUS installations, corps, divisions, and ARNG and MUSARC commanders will—

(1) Have operational control of assigned MAITs.

(2) Ensure that MAIT members are technically competent and possess the ability to provide quality A and I.

(3) Ensure that assigned MAIT personnel receive training to maintain technical competence and remain current with changing logistics policies and procedures and instructional techniques. The MAIT will receive its share of new equipment training (NET).

(4) Request assistance from supporting activities and/or higher headquarters to correct problems that cannot be corrected within the command.

(5) Request, through channels, modifications to TOE/MTOE or TDA for personnel and equipment in support of the MAIT Program.

(6) Provide resources needed to carry out the MAIT Program.

(7) Periodically evaluate MAIT performance and effectiveness.

(8) Provide for periodic conferences between MAITs and evaluation and inspection teams to highlight and resolve possible conflicts in interpretation of logistic policy and procedures.

f. Commanders of units visited will—

(1) Ensure that appropriate personnel, materials, and records are available for the MAIT during scheduled A and I visits.

(2) Take prompt action to correct problems.

(3) Request assistance from supporting activities and/or higher headquarters to correct problems that cannot be corrected by the unit.

(4) Retain the latest two MAIT visit summaries.

4–19. MAIT Program policy

a. The MAIT Program will be operated as a decentralized program.

(1) Teams will be established at installations, RG, or comparable levels in CONUS; and at corps, division, separate brigade, or comparable levels in overseas areas.

(2) The teams will be clearly identified in mission and function statements or operating regulations.

(3) A MAIT will not be established when troop or equipment density does not warrant it. In such cases, the responsibility for providing A and I is assigned to an established team within the geographic location according to AR 5–9.

b. Personnel assigned to a MAIT will not participate in command inspections, annual general inspections, annual training evaluations, spot checks, roadside inspections, Command Logistics Review Teams (CLRT), or any other command evaluation program.

c. When resources permit, each Active Army and Reserve Component unit will be visited annually. Visits to Reserve Component units will take place during scheduled drills and assemblies or during annual training periods.

d. MAIT visits will not be scheduled during any inspection.

e. Commanders of units visited are provided a summary report of the visit.

f. MAIT visit results and summaries will not be given ratings or scores, nor will the information be revealed to any inspection agency. When the MAIT function is contracted, MAIT visit results will be available to quality assurance evaluators.

g. MAITs provide semiannual overview briefings or published status reviews to brigade, division, corps, installation, and senior level Reserve Component commanders. Briefings should highlight significant problems encountered that apply command–wide, but will not identify specific units involved. Special emphasis is placed on providing the commander an overall assessment of conduct and supervision of PMCS within the command.

4–20. MAIT procedures

a. The MAIT consists of the minimum number of specialists required to meet the needs of the visited unit.

b. MAIT visits will be directed for specific units not meeting acceptable readiness standards or levels. Direct communication will be established between the units in need of assistance and the supporting MAIT.

c. Participation by DS soldiers in MAIT visits is encouraged.

d. Coordination between the unit and Active Component MAITs will take place at least 7 working days prior to a